



United States Steel Corporation  
Great Lakes Works  
Environmental Department  
No. 1 Quality Drive  
Ecorse, Michigan 48229

April 18, 2019

EES Case Management Unit  
Environmental and Natural Resources Div.  
U. S. Department of Justice  
Box 7611  
Washington, DC 20044-7611

Eric Cohen  
Office of Regional Counsel, C-14J  
US EPA, Region V  
77 West Jackson Blvd.  
Chicago, IL 60604

Compliance Tracker (AE-17J)  
Air Enforcement and Compliance Assurance  
U. S. Environmental Protection Agency  
Region 5  
77 West Jackson Blvd.  
Chicago, IL 60604

Neil D. Gordon  
Michigan Dept. of Attorney General  
Environment, Natural Resources, and  
Agriculture Division  
P. O. Box 30755  
Lansing, MI 48909

Wilhemina McLemore  
Michigan Department of Environmental Quality  
Air Quality Division  
Cadillac Place, Suite 2-300  
3058 W. Grand Blvd – Suite 2-300  
Detroit, Michigan 48202-6058

Sir/Madam:

Re: *United States, et al. v United States Steel Corporation*  
Consent Decree 2:12-cv-304, DJ# 90-5-2-1-06476/1  
United States Steel Corporation – Great Lakes Works  
City of Detroit Roadside Vegetative Particulate Buffer Project Completion Report



Pursuant to Paragraph VIII.47. of the above-referenced Consent Decree, U. S. Steel is submitting the City of Detroit Roadside Vegetative Particulate Buffer Project Completion Report.


If you have any questions regarding this matter or require additional information, please contact Alexis Piscitelli at 313-749-3900 or [apiscitelli@uss.com](mailto:apiscitelli@uss.com).

I certify that the project has been fully implemented pursuant to the provisions of the consent decree entered in *United States, et al. v United States Steel Corporation* Consent Decree 2:12-cv-304, (N.D. Ind.), that I am familiar with the information in this document, and that, based on my inquiry of those individuals responsible for obtaining the information, it is true and complete to the best of my knowledge. I know

Patish

there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,



Daniel Brown  
General Manager  
Great Lakes Works  
United States Steel Corporation



Alexis Piscitelli  
Director, Environmental Control  
Great Lakes Works  
United States Steel Corporation

cc: David Hacker (USS)  
Monica Tabares (Greening of Detroit)

attachments



**U. S. Steel Project  
Plant Vegetative Buffers in Southwest Detroit  
Final Report**

**Executive Summary**

The Greening of Detroit worked with the City of Detroit to oversee the installation of trees and shrubs at three public sites near high-traffic roadways in southwest Detroit. These vegetative buffers will improve environmental conditions in the surrounding communities.

1. **Kemeny Playfield** is located at 2260 S. Fort Street, south of I-75 and Schaefer Road. The City of Detroit has invested over \$750,000 in the last year, making significant improvements at the site that include improvements to basketball courts, tennis courts, ball diamonds, walking path, and new site amenities including soccer fields, playground, picnic shelter, fitness workout stations, and fencing with concrete maintenance strip. This new fencing is along I-75 near the proposed location of the vegetative buffer. A multi-million-dollar renovation to improve the recreation center has just begun construction. In addition, Wayne County will be investing \$45,000 at the park to extend the walking loop to become a quarter mile loop. The U. S. Steel funds provided installation of a vegetative buffer along I-75 and an exit ramp. The planting was completed in fall 2018 and included 2-2.5" caliper trees and large growing shrubs. The EPA has initiated a study, and has collected data for a baseline comparison that will be used to evaluate project outcomes.
2. **Beard Park** is a two-acre community open space located at I-75 and Fort Street (about two miles northeast of Kemeny Playfield). Detroit lags far behind other major urban cities for including forested green spaces in its park system, which offer residents opportunities for passive recreation, relaxation, and educational opportunities. New 2-2.5" caliper trees were planted at Beard to create a natural wooded area at this community open space. Once the new trees are established, the forested area will require little or no maintenance, yet will provide important environmental benefits for the surrounding neighborhoods.
3. **Riverside Park** is located in Southwest Detroit, adjacent to the Detroit River and west of the Ambassador Bridge. The 20-acre park is near an active railroad, an international border crossing and industrial factories, all of which contribute to air pollution. Funding from U. S. Steel provided new 2-4.5" caliper trees that have been planted on a 3-acre

section of the park adjacent to Jefferson Avenue and Fort Street, serving as an important vegetative buffer in this high traffic area. These trees also contributed to the City of Detroit ongoing five-phase, multi-million-dollar renovation plan for Riverside Park, which was created with extensive input from the community. Phase 1 is completed, and includes new softball and soccer fields, basketball court, picnic shelter, restroom, playground equipment, and 140 new trees. Phase 2 has also completed and includes the tress from this project, a skate park, and dog park.

Overall, as general contractor of the "Vegetative Buffer Project" The Greening of Detroit along with the City of Detroit was fully satisfied with project implementation by all hired contractors.

## **Final Report Details**

In the Fall 2017, The Greening of Detroit began Request For Proposal (RFP) development for vegetated buffer installations at Beard, Kemeny, Riverside Parks, per the Joint SEP. The RFP was approved by the City of Detroit in February 2018, and launched February 27, 2018. By end of March 2018, all bids were received, with the final projects awarded as follows:

1. Beard Park: Greening of Detroit
2. Kemeny Park: Backer Landscaping
3. Riverside Park: W. H. Canon

Contract development for Beard and Kemeny parks occurred in April 2018 for a spring installation. Riverside Park site construction pushed installation to Fall of 2018.

### **Beard Park Timeline:**

2018

May 16 - Site Preparation Begins

May 31 - Installation Complete and Maintenance begins

2019

March - Spring pre-emergent to be applied

### **Kemeny Park Timeline:**

2018

May 2 - Site Preparation Begins

June 18 - Installation Underway

June 26 - Complete and Maintenance begins

October 8 - Plant Warranty Replacements

2019

March - Spring pre-emergent to be applied





## **Appendix A - Cost Information**

**Evidence of the Joint SEP completion (which may include, but is not limited to, photos, vendor invoices or receipts, correspondence from Joint SEP recipients, etc.);**

Photos of the completed parks can be found in Appendix B.

**To the extent possible, documentation supporting the quantification of benefits associated with each Joint SEP and an explanation of how such benefits were measured or estimated; and**

The Greening of Detroit was able to measure the CO2 sequestration rates of the U. S. Steel plantings for Year 1 and Year 10. Please see attached document in Appendix C.

In addition, The Greening has reached out to EPA to determine the air quality measured and results and benefits of the said project from air quality perspective.

**A copy of the planting plan that was implemented under the Joint SEP;**

See Appendix D for individual planting plans.

**A list of the expenditures of funds; and**

See Appendix A for the expenditures of funds.

**An identification and quantity of the tree species and other vegetation planted.**

See Appendix D for tree species and other vegetation planted.

### Riverside Park Timeline:

2018

August through October – Contract development set back, due to site and hardscaping delays (Outside the scope of this contract). Site construction had been going on throughout the summer.

October 10 - Riverside Contract Signed

November 19 - Riverside Plant Material Reviewed

November 26 - Installation underway

## December 12 - Riverside Installation Completed

2019

March - Spring pre-emergent to be applied

A description of any problems encountered in completing the Joint SEP and solutions thereto:

Beard and Kemeny Parks were planted in Spring 2018 as scheduled. Riverside Park was planted in Fall of 2018 to accommodate a delayed construction schedule. As a result, maintenance funds for summer maintenance were converted into irrigation infrastructure. This irrigation infrastructure is in the form of an irrigation tap that allows water to feed from the public water main and into the onsite irrigation lines for Riverside Park. Given that the consent decree requires that all work be completed by March 30, 2019, this allows the contractor to maintain the 1 year plant warranty as originally intended. Without the irrigation, and forgoing maintenance in the first growing season due to the restricted timeline of the consent decree, puts the entire planting at risk of low survivability.

**An itemized list of all Joint SEP costs expended, and documentation of all expenditures;**

Invoices can be found in Appendix A, and detailed table of spending is included below.

[illegible]



# 13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
 April 4, 2018  
 PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 1	NONRESPONSIV
Administration Program Supplies	
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or monica@greeningofdetroit.com	
Balance	NONRESPONSIV







# 13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
April 12, 2018  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 2	
Install & Maintenance Administration Program Supplies	NONRESPONSIV
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or monica@greeningofdetroit.com	
Balance	NONRESPONSIVE





# 13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
June 12, 2018  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 3	
Install & Maintenance Administration Program Supplies	NONRESPONSIVE
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or <a href="mailto:monica@greeningofdetroit.com">monica@greeningofdetroit.com</a>	
Balance	NONRESPONSIVE







# 13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
August 12, 2018  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 4	
Beard Park Kimeny Park Riverside Park Administration	
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or monica@greeningofdetroit.com	
Balance	





13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
August 27, 2018  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 5	
Beard Park Kimeny Park Riverside Park Administration Supplies	
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or monica@greeningofdetroit.com	
Balance	

NONRESPO

NONRESPONSIVE





# 13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
August 27, 2018  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	NONRESPON
Invoice 6	
Beard Park Kimeny Park Riverside Park Administration Supplies	
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or monica@greeningofdetroit.com	
Balance	NONRESPON







13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
December 7, 2018  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 7	NONRESPONSIVE
Riverside Park Administration Supplies	
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or monica@greeningofdetroit.com	
Total:	NONRESPONSIVE





# 13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
December 7, 2018  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 8	NONRE
Riverside Park Administration Supplies	
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or monica@greeningofdetroit.com	
Total:	NONRESPONSIVE







# 13000 W. McNichols Detroit 48235

US Steel Company

The Greening of Detroit  
February 14, 2019  
PO Number 20609345

Description	Total
The Greening of Detroit	
US Steel EPA City of Detroit Vegetative Buffer Project in Southwest Detroit at "Beard, Kemeny and Riverside Park" PO number 20609345	
Invoice 9	NONRESPONSIVE
Beard Kemeny Riverside Park Administration Supplies	
Any questions please contact: Monica Tabares, Development Director (313)285-1246 or <a href="mailto:monica@greeningofdetroit.com">monica@greeningofdetroit.com</a>	
Total:	NONRESPONSIVE



## **Appendix B - Completion Photos**

































































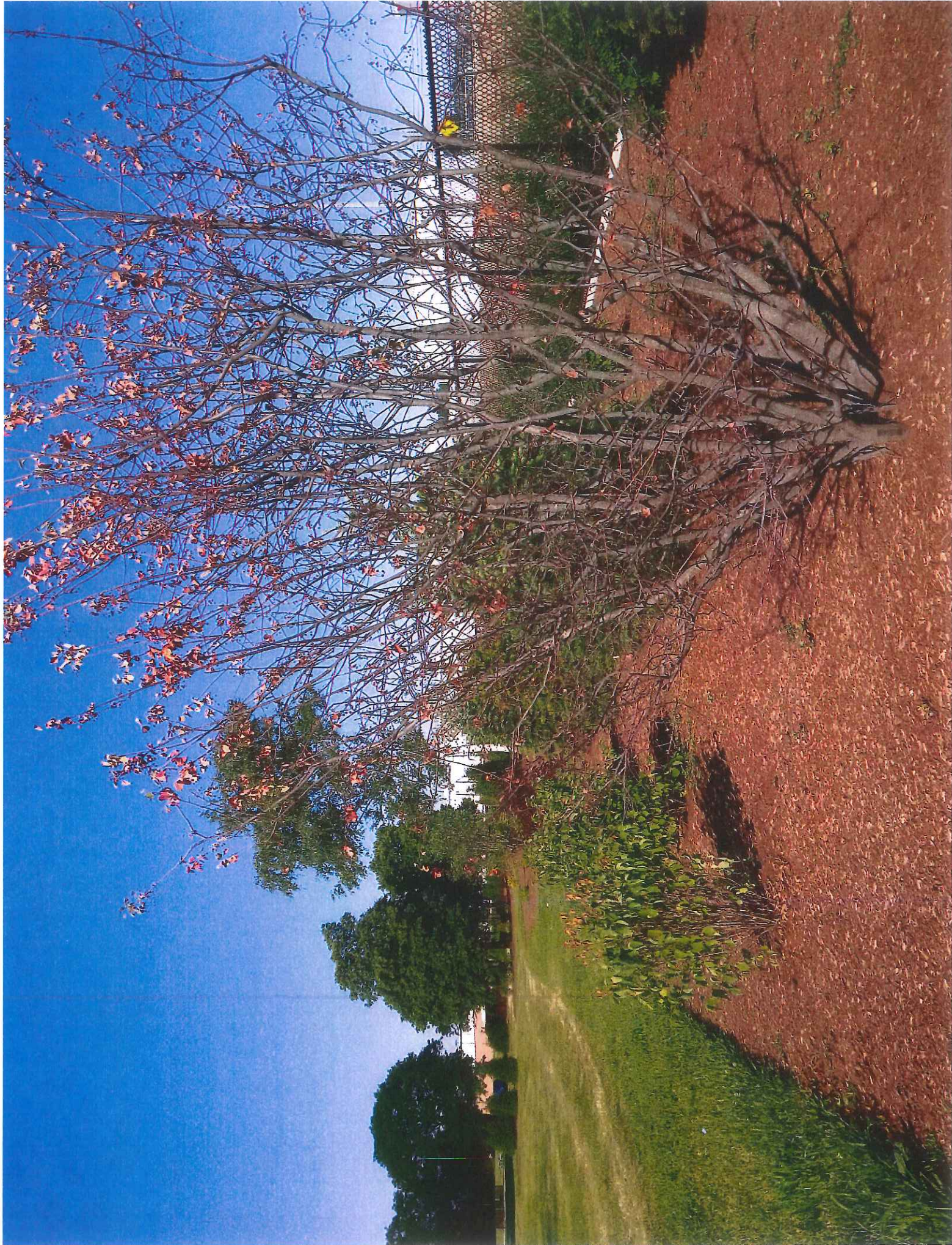


















## **Appendix C - Quantification of Benefits**



## 20-Feb-19


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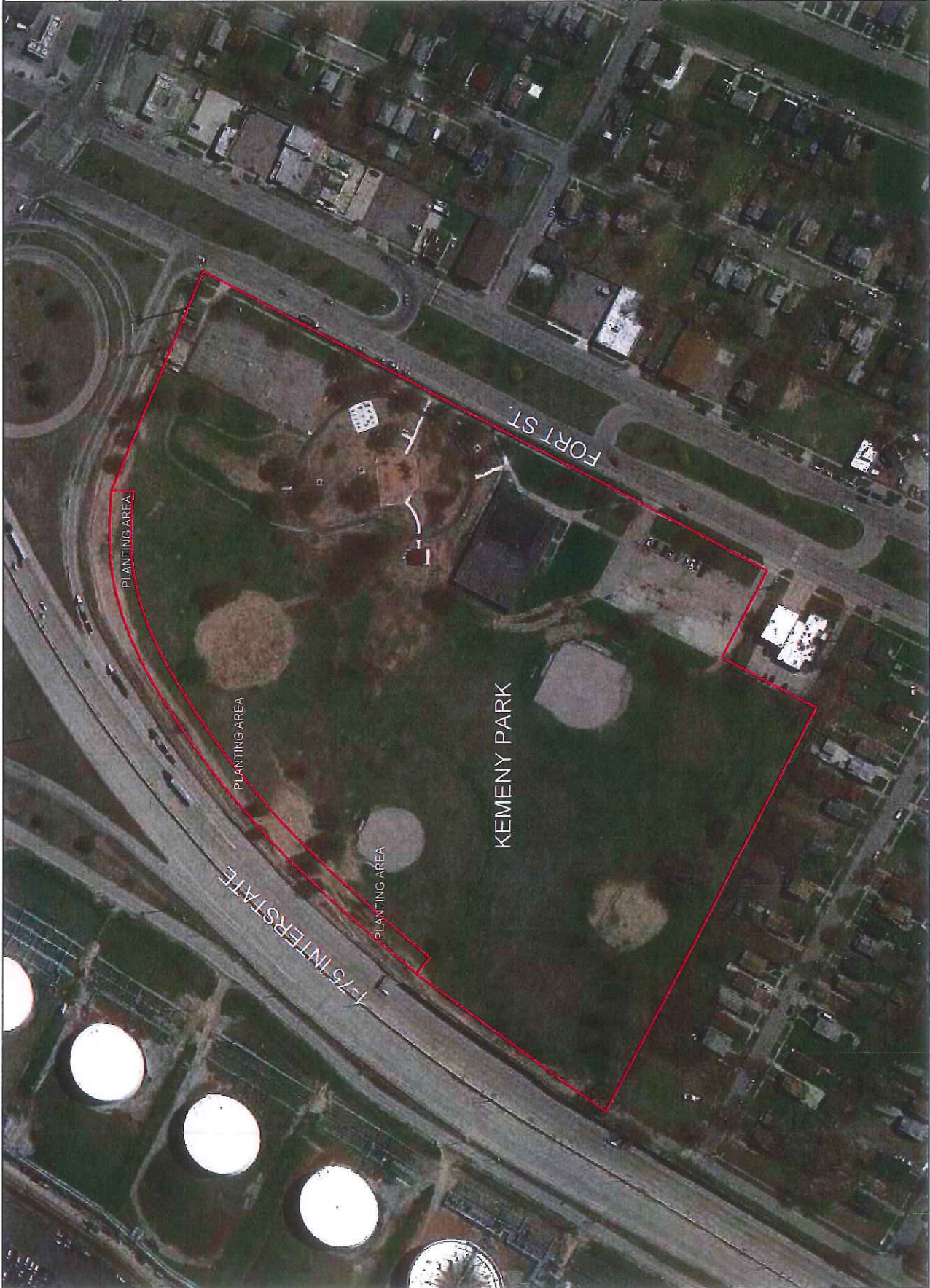


## **Appendix D - Planting Plans**





 <p>GENERAL SERVICES DEPARTMENT LANDSCAPE DESIGN UNIT 1000 W. WABASH AVE., 10TH FLOOR DETROIT, MICHIGAN 48226 (313) 224-6100 Phone (313) 224-6101 Fax</p>			
PROJECT:		KEMENY PLAYFIELD	
PREPARED BY:	LANDSCAPE DESIGN UNIT		
DRAWN BY:	J.D.	DATE:	11/10/2017
CHECKED BY:		DATE:	
APPROVED BY:			
SHEET TITLE:		PROPOSED SITE PLAN	
N		CONTEXT MAP	
SCALE:		PROPERTY NO. 225 DISTRICT NO. 6	







Beard Park  
8902 S. Fort St.

**Project Description:** Vegetative buffer inside park. Funding from U.S. Steel.

**1. Tree Installation**

- a. Install all trees to City of Detroit specifications, as described in *General Planting Notes*, which is attached to this document as Appendix 1.
- b. Install trees, in individual mulch rings, at locations shown on drawing, and they shall be:

Species	Common Name	Size	Amount
<i>Cercis canadensis</i>	Redbud	2.5"	5
<i>Picea abies</i>	Norway Spruce	6'	5
<i>Syringa reticulata</i>	Japanese Tree Lilac	2.5"	7
<i>Ulmus americana</i> 'Princeton'	American Elm 'Princeton'	2.5"	3

**2. Maintenance**

- a. Water all newly planted trees and shrubs fourteen times the summer after installation. Roughly twice a month from April to November, depending on weather. Consult with City Representative to create watering schedule. Watering should thoroughly soak root balls. This is in addition to the two watering sessions stipulated in the attached *General Planting Notes* Appendix 1.
- b. Remove all unwanted vegetation from tree rings, during each watering session.

**3. Site Restoration:**

- a. The completion of the site restoration work shall include, but is not limited to, the restoration of all areas disturbed by the construction work operations, backfilling, all final lawn rough grading, finish fine grading of the lawn surfaces as specified in the preparation to install the hydro-seeding materials for lawn areas, the actual hydro-seeding and fertilization of the prepared and approved turf lawn areas, protection of all fixed site improvements like fencing, trees, play structures, walk and other paved surfaces from any over-spray, clean-up following installation work, aeration, and fertilizing, and other maintenance and care necessary to produce a quality lawn including scarifying and re-application of any bare areas as required until the new turf is fully established and accepted by the City and final clean-up of the Park to turn back over to the City, and all other items necessary to complete the job, whether specifically mentioned or implied. If the City Representative determines that top soil from this site or other project sites is acceptable top soil the contractor may be allowed to reuse the acceptable topsoil as back fill material for site restoration.

**4. Mobilization:**

- a. Mobilization will be paid for on a contract lump sum basis. Price paid shall be payment in full for all labor, material, and equipment necessary for all preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, tools and any other incidentals that are required to project site; and any other facilities necessary to undertake the work on the project; and for other work and operations, which must be performed, or for expenses incurred, prior to beginning work on the various contract items at the project sites. This item shall also include preconstruction costs, exclusive of bidding costs, which are necessary direct costs to the project and are of a general nature rather than directly attributable to other pay items under the contract. The price paid shall be payment in full for Mobilization throughout the progress of the project work until completed.

**5. Layout & Field Survey:**

- a. Layout and field survey will be paid for on a contract lump sum. Price paid shall be contractor's responsibility to lay out all site elements, mark all field locations, set grades and review with City Representative for approval.

**6. Bonds & Insurance:**

- a. Bonds and Insurances will be paid for on a contract lump sum basis. Price paid shall be payment in full for the project contract bonds for the award amount and insurance policies throughout the life of the contract for the project work until completed.

**7. General Conditions:**

- a. General Conditions will be paid for at the Contract lump sum basis for work at all the various sites. Price paid shall be payment in full for General Condition's items & work throughout the progress of the Project Work, until completed.

**8. Miscellaneous & Close-Out Work:**

- a. Price paid shall be payment in full for all submittals, testing, labor, material, layout and equipment necessary for the completion to the full satisfaction of the City of the work required by this Project not otherwise included in a pay item listed above, and for the preparation and submittal to the City of all manufacturer warranties, required test results, other miscellaneous required documents, final permit clearances, maintenance manuals and manufacturer data as may be required within individual specification sections of the Contract Documents, completion of any and all "punch list" work to satisfaction and acceptance of the City, "As Built" drawings given to the City Representative as a complete package and Final Waivers from all subcontractors and suppliers, release of Surety, and a final Sworn Statement.

#### Alternate 1 - Second Year Maintenance

- a. Water all newly planted trees and shrubs fourteen times the second summer after installation. Roughly twice a month from April to November, depending on weather. Consult with City Representative to create watering schedule.
- b. Remove all unwanted vegetation from mulch bed, during each watering session.

#### Alternate 2 - Additional Plants:

Prices to be provide for alternate plants, which can be selected on a per plant basis.

- a. Install trees, at locations determined by City Representative, and they shall be:

Species	Common Name	Size	Amount
<i>Cercis canadensis</i>	Redbud	2.5"	-
<i>Picea abies</i>	Norway Spruce	6'	-
<i>Syringa reticulata</i>	Japanese Tree Lilac	2.5"	-
<i>Ulmus americana</i> 'Princeton'	American Elm 'Princeton'	2.5"	-

## Appendix 1

### **GENERAL PLANTING NOTES**

1. All plants to be installed in accordance with American Association of Nurserymen (A.A.N.) Landscape Standards.
2. Fertilizer shall be M-Roots 3-3-3 or City Representative approved organic fertilizer(s) with Mycorrhiza(s) and applied to the plant mix according to Manufacturer's Directions.
3. Contractor shall provide a Plant Mix consisting of 50% existing soil, 30% sandy loam topsoil and 20% compost. The City Representative shall be allowed two weeks to receive any and all required soil test results. No plants shall be planted prior to City Representative approval of soil conditions.
4. Backfilling of all voids from removal work shall be with sandy loam topsoil and existing approved site soils. Discovered site concrete, gravel or other non-soil(s) will not be acceptable.
5. Spacing of plant materials shall be as shown on drawing, City Representative reserves the right to modify all plant and bed locations prior to planting at no additional cost to the City. The contractor must coordinate the layout and planting three business days in advance with City Representative so that coordination of the planting on that day is not hampered.
6. Refer to specifications for additional requirements.
7. All plants shall bear the same relationship to finished grade as the plants original grade before digging.
8. No container grown stock will be accepted if it is root bound. Any and all wrapping materials made of synthetics or plastics shall be completely removed prior to the time of planting.
9. All plant pits must be a minimum of twice the root ball or container diameter.
10. Contractor shall fill plant pit with prepared plant mix to ½ depth of root ball or root mass, pack mix firmly and puddle with water.
11. For balled and burlaped material, the burlap and all lacing (including wire basket if present) shall be removed from the upper-half of the root ball, then finish backfilling with plant mix. Removal all excess soil from top of root ball that is above the Original Nursery Grade.
12. A saucer shall be placed around every plant and shall be approved prior to the placement of any geo-textile fabric or mulch.
13. All plant materials shall conform to plant schedules. Sizes shall be the minimum stated on the plant list or larger. All measurements shall be in accordance with the latest editions of the "A.A.N. Standards for Nursery Stock."
14. Contractor shall apply City Representative approved pre-emergent herbicide to planting beds following plant installation and prior to mulch placement. The Contractor shall ensure the plant materials are resistant to the herbicides properties. Herbicide shall be applied according to Manufacturers Specifications and in accordance with sound horticultural practices.
15. All mulch material shall be placed at a minimum depth of 3" and shall be double-shredded hardwood bark. No mulch shall be placed on plants trunks.
16. Refer to Specifications for Lawn Restoration and Establishment to provide acceptable established turf.
17. All plant materials shall be inspected upon arrival. Any plants not acceptable to the City Representative will be rejected. If for any reason any balled and burlaped plant materials need to be stored on site longer than a 24-hour period, their root balls shall be protected by a City Representative approved method. All plants shall be thoroughly watered each day they are stored on site. Any plants allowed to dry out will be rejected.
18. Plant materials, especially evergreens, shall be planted higher than normal when heavy soil conditions (clay, etc.) prevail.
19. All planting beds shall be prepared with appropriate soil mixtures and fertilizer before plant installation.
20. Natural edging shall consist of a 6 x 6 inch trench filled with mulch.
21. Any discrepancies between the plans and specifications shall be immediately reported to the City Representative for his review and decision.
22. Contractor shall supply all plant materials in quantities sufficient to complete the planting shown on all drawings.

23. No plant shall be put into the ground before rough grading has been finished and approved by the City Representative.
24. All plants and stakes shall be set plumb unless otherwise specified. All guys and stakes must be located within each trees' mulched area to eliminate the possibility of mower contact and to reduce maintenance. Staking of the shrubs is not anticipated. However, if it is determined by the City Representative that staking is required, the contractor shall stake all desired plants at no additional cost to the City.
25. Contractor shall be responsible for viewing the site prior to bidding making note of any special conditions that would be a concern to this part of the contract.
26. Contractor shall provide a one year warranty on all plant materials and any plants that are determined by the City Representative to be defective at his or her own discretion must be replaced. Replacement must be done during the following planting season. All plants are to be thoroughly watered at planting and another additional time two weeks after.







GENERAL SERVICES DEPARTMENT  
LANDSCAPE ARCHITECTURE  
1100 HURON RD. UPPER LEVEL  
DETROIT, MICHIGAN 48226  
(313) 242-0410 Phone  
(313) 242-0411 Fax

PROJECT:

BEARD PARK

PREPARED BY:  
LANDSCAPE DESIGN UNIT

DRAWN BY: JD DATE: 04/02/2017  
CHECKED BY: DATE:  
APPROVED BY: DATE:

SHEET TITLE:

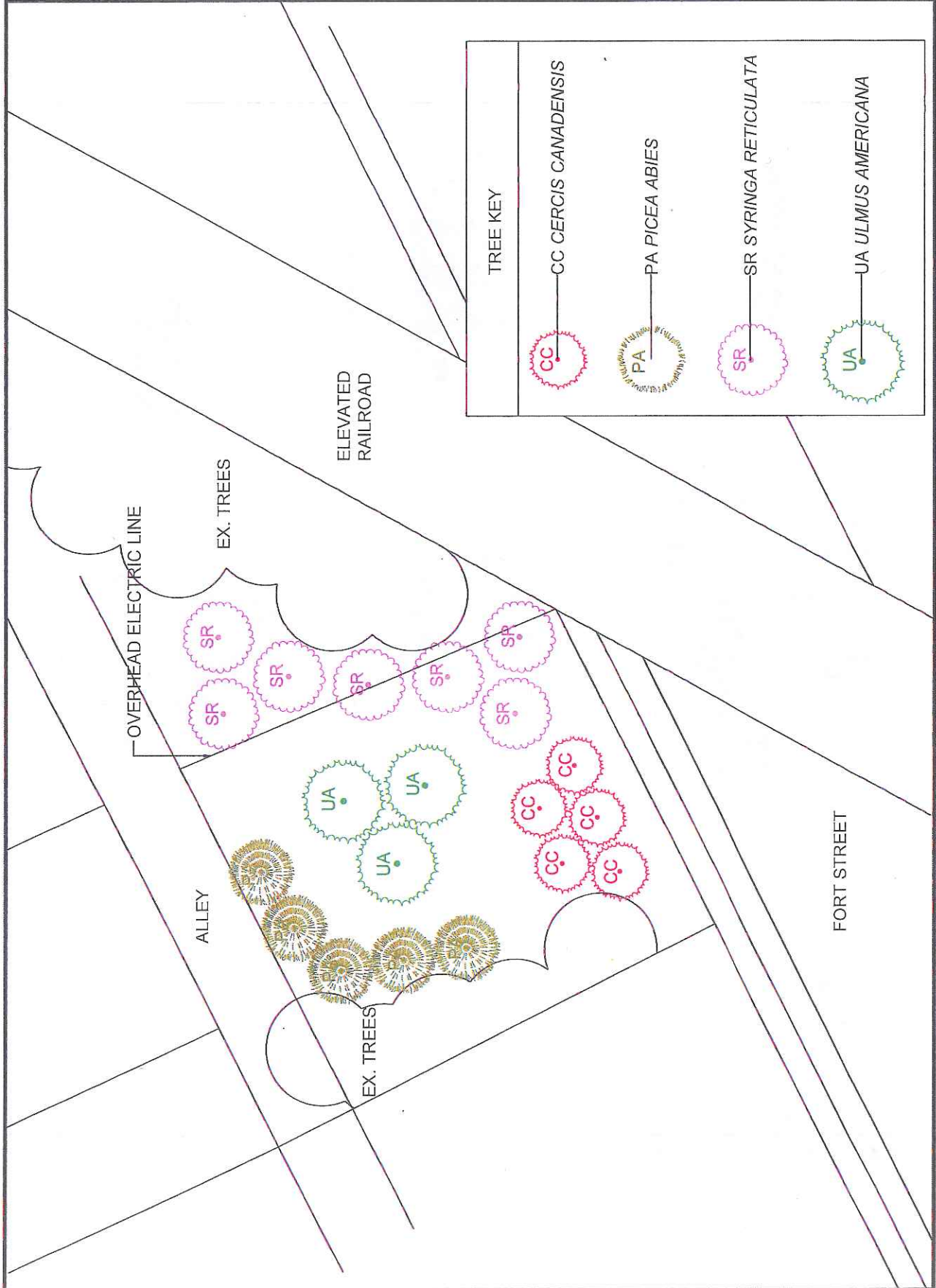
PROPOSED SITE PLAN



SHEET NO. 1 OF 2

SCALE:  
1" = 20'

PROPERTY NO.:  
DISTRICT NO.:



**NOTES:**  
1. DO NOT SCALE OFF THE DRAWING. DETAILS ARE NOT TO SCALE.  
2. CHECK ALL SUPPLIER SPECIFICATIONS AND DIMENSIONS FOR PARTS. DETAILS INFORMATION.  
3. ALL SURFACES SHALL BE COMPACTED TO 95%  
4. CALL 800-735-4000 (3 WORKING DAYS) FOR MATERIALS AND INFORMATION TO MARK ALL UTILITIES. (800) 482-7171

PROJECT:

BEARD PARK

PREPARED BY:  
LANDSCAPE DESIGN UNIT

DRAWN BY: J.D.  
CHECKED BY: DATE: 09/04/17  
APPROVED BY: DATE:

SHEET TITLE:

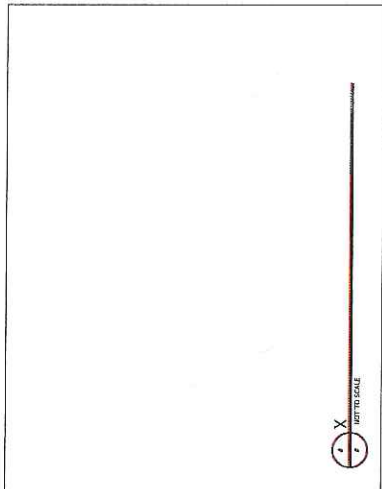
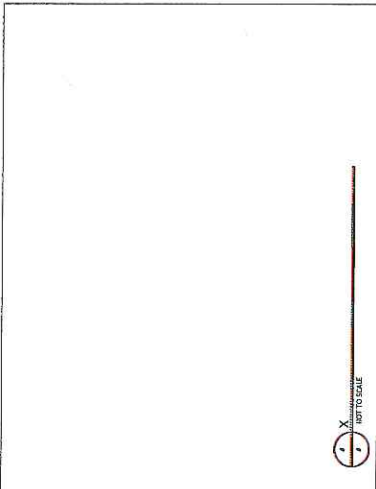
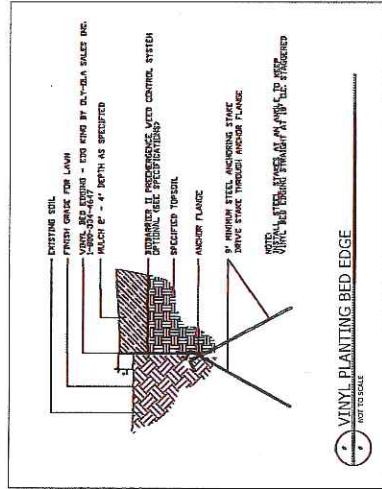
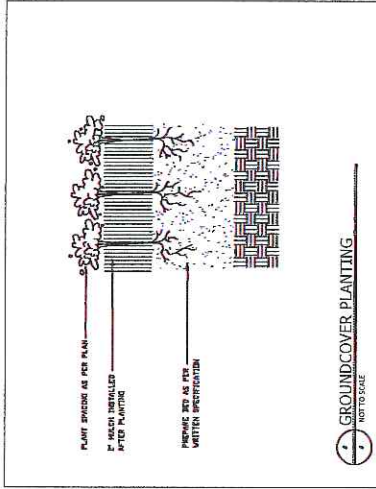
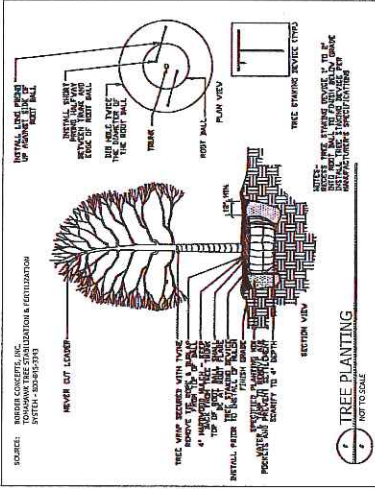
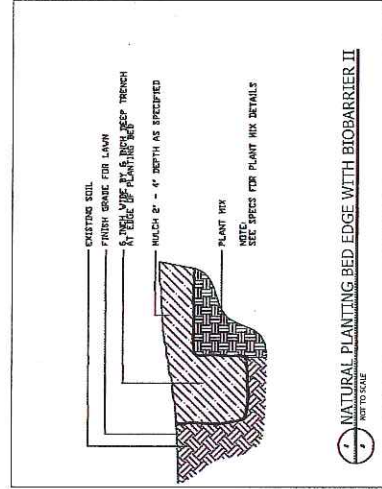
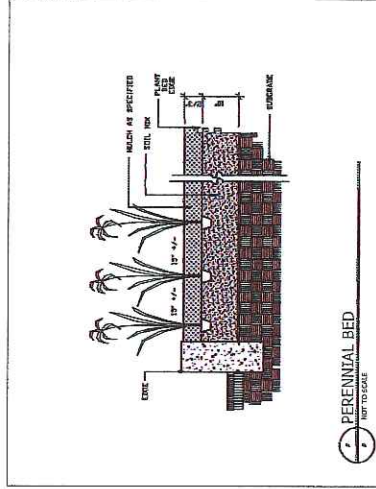
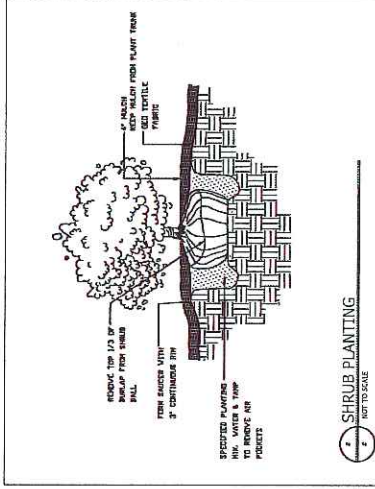
DETAILS

N

SHEET NO. 1 OF 2

SCALE:  
NTS

PROJECT NO. 382  
CONTRACT NO.



Kemeny Playfield

Plant Pricing Sheet

**Coniferous Trees**

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Abies concolor</i>	Concolor Fir	6'	10	NONRESPONSIVE	
<i>Juniperus virginiana</i>	Red Cedar Juniper	6'	27		
<i>Picea abies</i>	Norway Spruce	6'	22		
<i>Picea glauca</i>	White Spruce	6'	3		
<i>Picea omorika</i>	Serbian Spruce	6'	28		
<i>Pinus nigra</i>	Austrian Pine	8'	11		
<i>Pinus strobus</i>	White Pine	8'	8		
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	6'	11		
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	8'	29		

**Shrubs**

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Amelanchier arborea</i> 'Autumn Brilliance'	Autumn Brilliance Serviceberry	8' MS	10	NONRESPONSIVE	
<i>Euonymus alatus</i>	Straight species	5 gal	40		
<i>Forsythia x "Meadow Lark"</i>	Meadowlark Forsythia	5 gal	45		
<i>Rhus typhina</i> "Tiger Eyes"	Tiger Eyes Sumac	5 gal	20		
<i>Physocarpus</i> "Diablo"	Diablo Ninebark	5 gal	36		
<i>Viburnum dentatum</i> "Autumn Jazz"	Autumn Jazz Viburnum	5 gal	41		

### Alternate tree pricing

#### Coniferous trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Abies concolor</i>	Concolor Fir	6'	10	NONRESPON	
<i>Juniperus virginiana</i>	Red Cedar Juniper	6'	27		
<i>Picea abies</i>	Norway Spruce	6'	22		
<i>Picea glauca</i>	White Spruce	6'	3		
<i>Picea omorika</i>	Serbian Spruce	6'	28		
<i>Pinus nigra</i>	Austrian Pine	8'	11		
<i>Pinus strobus</i>	White Pine	8'	8		
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	6'	11		
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	8'	29		

#### Deciduous Trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Acer rubrum 'Red Sunset'</i>	"Red Sunset" Red Maple	2.5"	-	NONRESPONDI	
<i>Celtis occidentalis</i>	Hackberry	2.5'	-		
<i>Platanus acerifolia 'Exclamation'</i>	"Exclamation" London Plane	2.5'	-		
<i>Robinia pseudocacia 'Purple Robe'</i>	Purple Robe Locust	2.5'	-		
<i>Tilia americana 'Redmond'</i>	American Basswood "Redmond"	2.5'	-		
<i>Ulmus americana 'Princeton'</i>	"Princeton" American Elm	2.5'	-		

#### Shrubs

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Amelanchier arborea 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	8' MS	-	NONRESPONSIVE	
<i>Euonymus alatus</i>	<i>Straight species</i>	5 gal	-		
<i>Forsythia x "Meadow Lark"</i>	Meadowlark Forsythia	5 gal	-		
<i>Rhus typhina "Tiger Eyes"</i>	Tiger Eyes Sumac	5 gal	-		
<i>Physocarpus "Diablo"</i>	Diablo Ninebark	5 gal	-		
<i>Viburnum dentatum "Autumn Jazz"</i>	Autumn Jazz Viburnum	5 gal	-		

Kemeny Playfield  
2260 S. Fort Street

**Project Description:** Vegetative buffer along I75 interstate, on park edge.

**1. Bed Preparation:**

- a. Eradicate all vegetation in proposed planting bed with approved herbicide. Bed size approximately 38,500 SF, distributed over 5 beds, labeled A-E on drawing. (Existing trees to remain; *do not spray herbicide or rototill under trees*).
- b. Allow two weeks after initial application to determine if a second spray is necessary. Consult with City Representative to determine second spray.
- c. Apply approved compost to entire bed, to a minimum depth of 4".
- d. Rototill compost into bed, along with any remaining organic sod material. Rototill to a depth of 12", including 4" of added compost.

**2. Tree and Shrub Installation**

- a. Install all trees and shrubs to City of Detroit specifications, as described in *General Planting Notes*, which is attached to this document as Appendix 1.
- b. Install coniferous trees, at locations shown on drawing, and they shall be:

Species	Common Name	Size	Amount
<i>Abies concolor</i>	Concolor Fir	6'	10
<i>Juniperus virginiana</i>	Red Cedar Juniper	6'	27
<i>Picea abies</i>	Norway Spruce	6'	28
<i>Picea glauca</i>	White Spruce	6'	3
<i>Picea omorika</i>	Serbian Spruce	6'	28
<i>Pinus nigra</i>	Austrian Pine	8'	11
<i>Pinus strobus</i>	White Pine	8'	8
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	6'	10
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	8'	30

- c. Install shrubs, at locations shown on drawing, and they shall be:

Species	Common Name	Size	Amount
<i>Amelanchier arborea 'Autumn Brilliance'</i>	Autumn Brilliance Serviceberry	8' MS	10
<i>Euonymous alatus</i>	<i>Straight species</i>	5 gal	40
<i>Forsythia x "Meadow Lark"</i>	Meadowlark Forsythia	5 gal	45
<i>Rhus typhina "Tiger Eyes"</i>	Tiger Eyes Sumac	5 gal	20
<i>Physocarpus "Diablo"</i>	Diablo Ninebark	5 gal	36
<i>Viburnum dentatum "Autumn Jazz"</i>	Autumn Jazz Viburnum	5 gal	41

- d. Mulch all beds, approximately 38,500 SF, with 3 inches of double shredded pine bark.

- e. Apply 6 inches of approved top soil, then 3 inches of double shredded pine bark under existing trees. Approximately 5,000 SF. (38,500 SF quantity of mulch includes these areas – only top soil quantity is additional).

**3. Maintenance**

- a. Water all newly planted trees and shrubs fourteen times the summer after installation. Roughly twice a month from April to November, depending on weather. Consult with City Representative to create watering schedule. Watering should thoroughly soak root balls. This is in addition to the two watering sessions stipulated in the attached *General Planting Notes* Appendix 1.
- b. Remove all unwanted vegetation from mulch bed, during each watering session.

**4. Site Restoration:**

- a. The completion of the site restoration work shall include, but is not limited to, the restoration of all areas disturbed by the construction work operations, backfilling, all final lawn rough grading, finish fine grading of the lawn surfaces as specified in the preparation to install the hydro-seeding materials for lawn areas, the actual hydro-seeding and fertilization of the prepared and approved turf lawn areas, protection of all fixed site improvements like fencing, trees, play structures, walk and other paved surfaces from any over-spray, clean-up following installation work, aeration, and fertilizing, and other maintenance and care necessary to produce a quality lawn including scarifying and re-application of any bare areas as required until the new turf is fully established and accepted by the City and final clean-up of the Park to turn back over to the City, and all other items necessary to complete the job, whether specifically mentioned or implied. If the City Representative determines that top soil from this site or other project sites is acceptable top soil the contractor may be allowed to reuse the acceptable topsoil as back fill material for site restoration.

**5. Mobilization:**

- a. Mobilization will be paid for on a contract lump sum basis. Price paid shall be payment in full for all labor, material, and equipment necessary for all preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, tools and any other incidentals that are required to project site; and any other facilities necessary to undertake the work on the project; and for other work and operations, which must be performed, or for expenses incurred, prior to beginning work on the various contract items at the project sites. This item shall also include preconstruction costs, exclusive of bidding costs, which are necessary direct costs to the project and are of a general nature rather than directly attributable to other pay items under the contract. The price paid shall be payment in full for Mobilization throughout the progress of the project work until completed.



**6. Layout & Field Survey:**

- a. Layout and field survey will be paid for on a contract lump sum. Price paid shall be contractor's responsibility to lay out all site elements, mark all field locations, set grades and review with City Representative for approval.

**7. Bonds & Insurance:**

- a. Bonds and Insurances will be paid for on a contract lump sum basis. Price paid shall be payment in full for the project contract bonds for the award amount and insurance policies throughout the life of the contract for the project work until completed.

**8. General Conditions:**

- a. General Conditions will be paid for at the Contract lump sum basis for work at all the various sites. Price paid shall be payment in full for General Condition's items & work throughout the progress of the Project Work, until completed.

**9. Miscellaneous & Close-Out Work:**

- a. Price paid shall be payment in full for all submittals, testing, labor, material, layout and equipment necessary for the completion to the full satisfaction of the City of the work required by this Project not otherwise included in a pay item listed above, and for the preparation and submittal to the City of all manufacturer warranties, required test results, other miscellaneous required documents, final permit clearances, maintenance manuals and manufacturer data as may be required within individual specification sections of the Contract Documents, completion of any and all "punch list" work to satisfaction and acceptance of the City, "As Built" drawings given to the City Representative as a complete package and Final Waivers from all subcontractors and suppliers, release of Surety, and a final Sworn Statement.

### Alternate 1 - Second Year Maintenance

- a. Water all newly planted trees and shrubs fourteen times the second summer after installation. Roughly twice a month from April to November, depending on weather. Consult with City Representative to create watering schedule.
- b. Remove all unwanted vegetation from mulch bed, during each watering session.

### Alternate 2 - Additional Plants:

Prices to be provide for alternate plants, which can be selected on a per plant basis. All alternate trees should be assumed to be outside of the large planting bed, in individual mulched tree rings.

- a. Install coniferous trees, at locations determined by City Representative, and they shall be:

Species	Common Name	Size	Amount
<i>Abies concolor</i>	Concolor Fir	6'	-
<i>Juniperus virginiana</i>	Red Cedar Juniper	6'	-
<i>Picea abies</i>	Norway Spruce	6'	-
<i>Picea glauca</i>	White Spruce	6'	-
<i>Picea omorika</i>	Serbian Spruce	6'	-
<i>Pinus nigra</i>	Austrian Pine	8'	-
<i>Pinus strobus</i>	White Pine	8'	-
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	6'	-
<i>Thuja 'Green Giant'</i>	Green Giant Arborvitea	8'	-

- b. Install deciduous trees, at locations determined by City Representative, and they shall be:

Species	Common Name	Size	Amount
<i>Acer rubrum 'Red Sunset'</i>	"Red Sunset" Red Maple	2.5"	-
<i>Celtis occidentalis</i>	Hackberry	2.5'	-
<i>Platanus acerifolia 'Exclamation'</i>	"Exclamation" London Plane	2.5'	-
<i>Robinia pseudocacia 'Purple Robe'</i>	Purple Robe Locust	2.5'	-
<i>Tillia americana 'Redmond'</i>	American Basswood "Redmond"	2.5'	-
<i>Ulmus americana 'Princeton'</i>	"Princeton" American Elm	2.5'	-

- c. Install shrubs, at locations determined by City Representative, and they shall be:

Species	Common Name	Size	Amount
<i>Amelanchier arborea</i> 'Autumn Brilliance'	Autumn Brilliance Serviceberry	8' MS	-
<i>Euonymous alatus</i>	<i>Straight species</i>	5 gal	-
<i>Forsythia</i> x "Meadow Lark"	Meadowlark Forsythia	5 gal	-
<i>Rhus typhina</i> "Tiger Eyes"	Tiger Eyes Sumac	5 gal	-
<i>Physocarpus</i> "Diablo"	Diablo Ninebark	5 gal	-
<i>Viburnum dentatum</i> "Autumn Jazz"	Autumn Jazz Viburnum	5 gal	-



## Appendix 1

### **GENERAL PLANTING NOTES**

1. All plants to be installed in accordance with American Association of Nurserymen (A.A.N.) Landscape Standards.
2. Fertilizer shall be M-Roots 3-3-3 or City Representative approved organic fertilizer(s) with Mycorrhiza(s) and applied to the plant mix according to Manufacturer's Directions.
3. Contractor shall provide a Plant Mix consisting of 50% existing soil, 30% sandy loam topsoil and 20% compost. The City Representative shall be allowed two weeks to receive any and all required soil test results. No plants shall be planted prior to City Representative approval of soil conditions.
4. Backfilling of all voids from removal work shall be with sandy loam topsoil and existing approved site soils. Discovered site concrete, gravel or other non-soil(s) will not be acceptable.
5. Spacing of plant materials shall be as shown on drawing, City Representative reserves the right to modify all plant and bed locations prior to planting at no additional cost to the City. The contractor must coordinate the layout and planting three business days in advance with City Representative so that coordination of the planting on that day is not hampered.
6. Refer to specifications for additional requirements.
7. All plants shall bear the same relationship to finished grade as the plants original grade before digging.
8. No container grown stock will be accepted if it is root bound. Any and all wrapping materials made of synthetics or plastics shall be completely removed prior to the time of planting.
9. All plant pits must be a minimum of twice the root ball or container diameter.
10. Contractor shall fill plant pit with prepared plant mix to ½ depth of root ball or root mass, pack mix firmly and puddle with water.
11. For balled and burlaped material, the burlap and all lacing (including wire basket if present) shall be removed from the upper-half of the root ball, then finish backfilling with plant mix. Removal all excess soil from top of root ball that is above the Original Nursery Grade.
12. A saucer shall be placed around every plant and shall be approved prior to the placement of any geo-textile fabric or mulch.
13. All plant materials shall conform to plant schedules. Sizes shall be the minimum stated on the plant list or larger. All measurements shall be in accordance with the latest editions of the "A.A.N. Standards for Nursery Stock."
14. Contractor shall apply City Representative approved pre-emergent herbicide to planting beds following plant installation and prior to mulch placement. The Contractor shall ensure the plant materials are resistant to the herbicides properties. Herbicide shall be applied according to Manufacturers Specifications and in accordance with sound horticultural practices.
15. All mulch material shall be placed at a minimum depth of 3" and shall be double-shredded hardwood bark. No mulch shall be placed on plants trunks.
16. Refer to Specifications for Lawn Restoration and Establishment to provide acceptable established turf.
17. All plant materials shall be inspected upon arrival. Any plants not acceptable to the City Representative will be rejected. If for any reason any balled and burlaped plant materials need to be stored on site longer than a 24-hour period, their root balls shall be protected

by a City Representative approved method. All plants shall be thoroughly watered each day they are stored on site. Any plants allowed to dry out will be rejected.

18. Plant materials, especially evergreens, shall be planted higher than normal when heavy soil conditions (clay, etc.) prevail.
19. All planting beds shall be prepared with appropriate soil mixtures and fertilizer before plant installation.
20. Natural edging shall consist of a 6 x 6 inch trench filled with mulch.
21. Any discrepancies between the plans and specifications shall be immediately reported to the City Representative for his review and decision.
22. Contractor shall supply all plant materials in quantities sufficient to complete the planting shown on all drawings.
23. No plant shall be put into the ground before rough grading has been finished and approved by the City Representative.
24. All plants and stakes shall be set plumb unless otherwise specified. All guys and stakes must be located within each trees' mulched area to eliminate the possibility of mower contact and to reduce maintenance. Staking of the shrubs is not anticipated. However, if it is determined by the City Representative that staking is required, the contractor shall stake all desired plants at no additional cost to the City.
25. Contractor shall be responsible for viewing the site prior to bidding making note of any special conditions that would be a concern to this part of the contract.
26. Contractor shall provide a one year warranty on all plant materials and any plants that are determined by the City Representative to be defective at his or her own discretion must be replaced. Replacement must be done during the following planting season. All plants are to be thoroughly watered at planting and another additional time two weeks after.





GENERAL SERVICES DEPARTMENT  
LANDSCAPE DEPARTMENT  
1910 METROS RD, UPPER LEVEL  
DETROIT, MICHIGAN 48226  
(313) 224-9117 Phone  
(313) 224-9115 Fax

# KEMENY PLAYFIELD

PREPARED BY:  
LANDSCAPE DEPARTMENT  
DRAWN BY: J.D. DATE: 09/09/07  
CHECKED BY: DATE:  
APPROVED BY: DATE:

## PROPOSED SITE PLAN

SHEET TITLE:

SHEET NO. 1 OF 2

PROPERTY NO. 29  
DISTRICT NO. 1



TREE/SHRUB KEY	
AC ABIES CONCOLOR	BA BUDNIMOUS ALATA
UN JUNIPERUS VIRGINIANA	FL FORSYTHIA MEADOWLARK
PA PICEA ABIES	PO PHYSCARPUS 'DABLO'
PG PICEA GLAUCA	RT PINUS TYPHINA
PN PINUS NIGRA	VO VIBURNUM DENTATUM
PO PINUS OMBRIKA	NAB AMALANCHIER ARBOREA
PS PINUS STROBUS	
TO THUJA 'GREEN GEM' (S AND S)	





SHRUB PLANTING

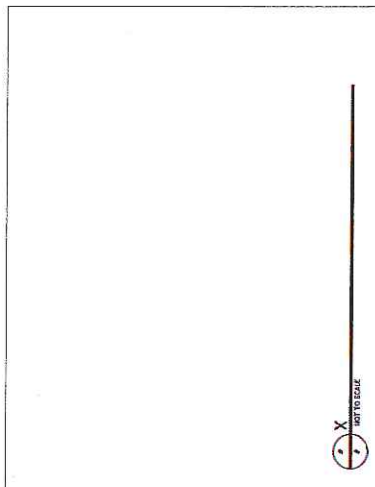
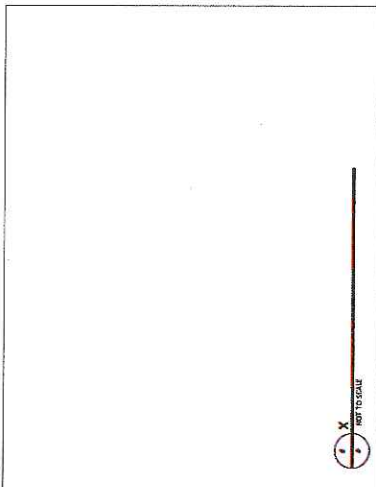
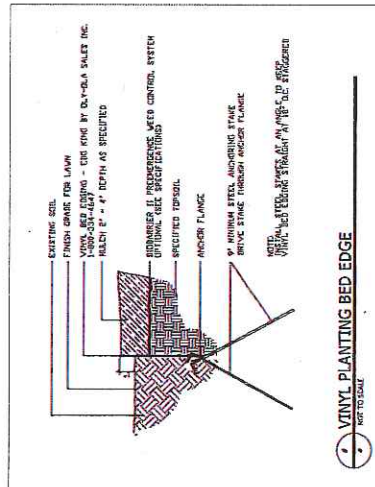
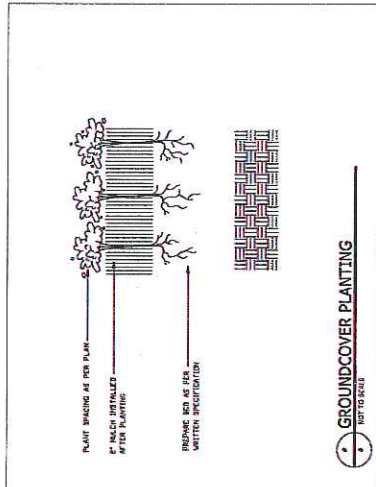
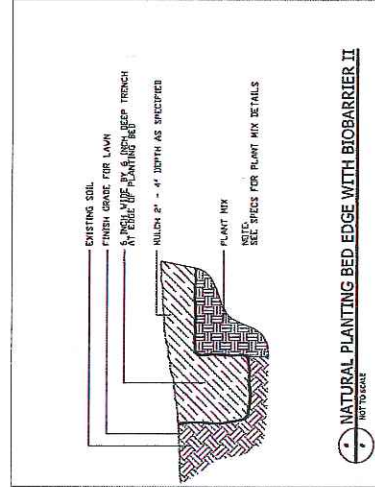
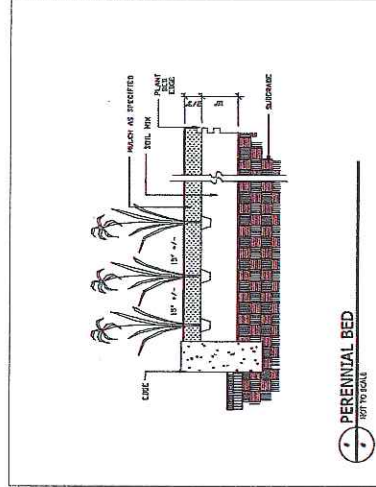
NOT TO SCALE

KEMENY PLAYEIO

DRAWN BY: JO	DATE: 09/09/2017
CHECKED BY:	DATE:
APPROVED BY:	

## DETAILS

## NATURAL PLANTING BED EDGE WITH BIOBARRIER II

PROPERTY NO. 229  
COUNTY NO. 2



PAUL TEEB & ASSOCIATES, INC.  
LANDSCAPE DESIGN  
11100 HENRI RD.  
UPPER LEVEL  
DETROIT, MI 48203  
313.926.5000 Phone  
313.926.5027 Fax

NOTE:

PREPARED BY:  
LANDSCAPE DESIGN

DRAWN BY: JD DATE: 01/11/2018

CHECKED BY: DATE:

APPROVED BY:

SHEET TITLE:

LANDSCAPE PLAN

ELIMINATED FOR:

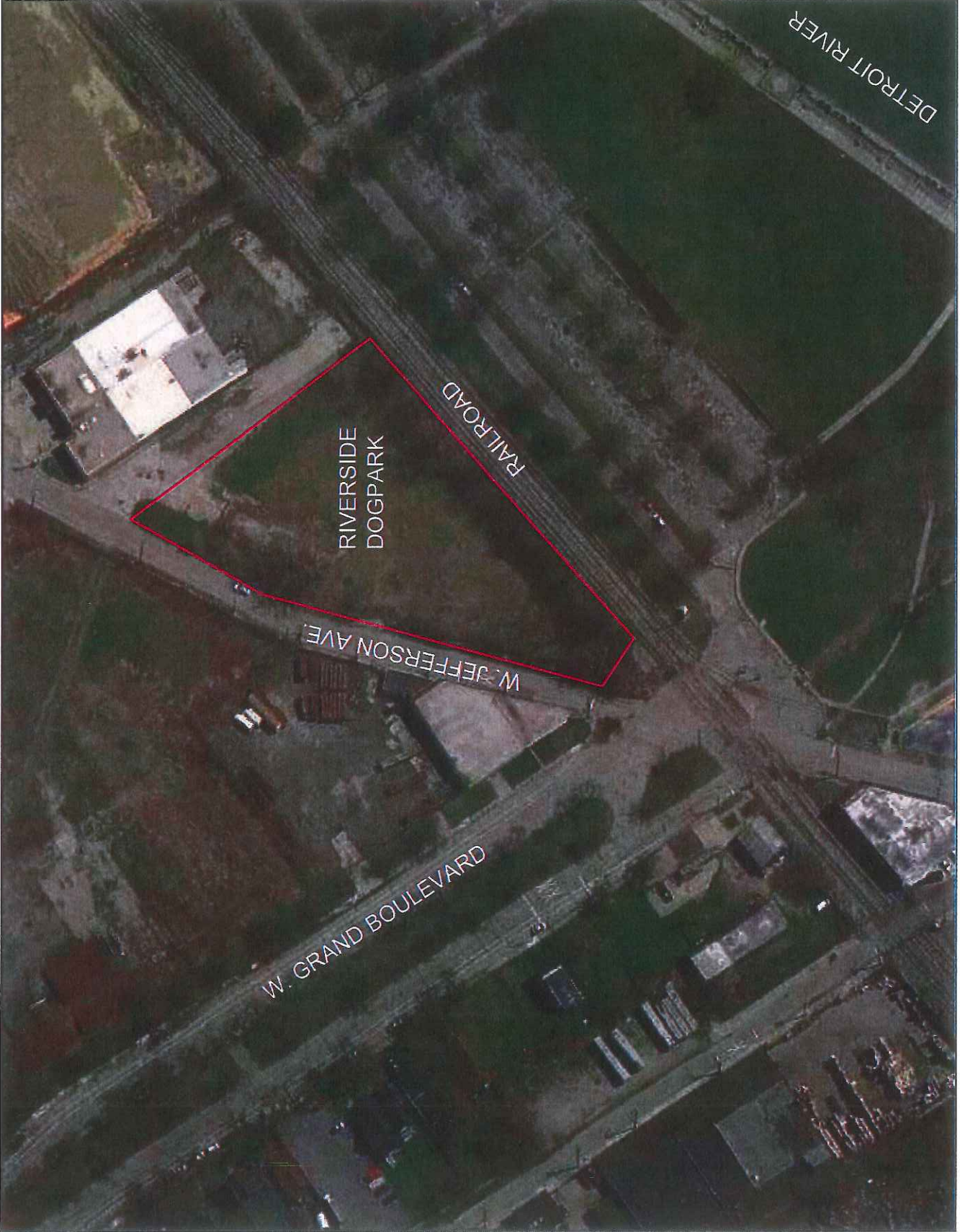
REVISIONS:

PROJECT:

RIVERSIDE PARK  
3085 W. JEFFERSON

N  
SCALE

CONTEXT MAP  
PROPERTY NO. 151  
DISTRICT NO. 6







## Riverside Park

### Plant Pricing Sheet

#### Deciduous Trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Acer x freeman</i> 'Autumn Blaze'	Autumn Blaze Maple	2.5"	3	NONRESPONSIVE	NONRESPONSIVE
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	2.5"	5		
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	4"	3		
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	8' MS	5		
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	16' MS	5		
<i>Platanus x acerifolia</i> 'Bloodgood'	Bloodgood London Planetree	2.5"	3		
<i>Quercus bicolor</i>	Swamp White Oak	4"	3		
<i>Tilia americana</i> 'Redmond'	Redmond Linden	2.5"	4		
<i>Tilia americana</i> 'Redmond'	Redmond Linden	4"	2		
<i>Ulmus americana</i> 'Princeton'	American Elm	2.5"	9		

#### Ornamental Trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Cercis Canadensis</i> 'Forest Pansy'	Forest Pansy Redbud	2"	6	NONRESPONSIVE	NONRESPONSIVE
<i>Malus</i> 'Sugar Tyme'	Sugar Tyme Crabapple	2"	15		
<i>Magnolia soulangeana</i> 'Jane'	Magnolia Jane	2" MS	9		
<i>Syringa reticulata</i> 'Ivory Silk'	Ivory Silk Japaneses Tree Lilac	2"	9		

#### Coniferous Trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Picea abies</i>	Norway Spruce	5'	2	NONRESPONSIVE	NONRESPONSIVE
<i>Picea abies</i>	Norway Spruce	6'	2		
<i>Picea abies</i>	Norway Spruce	7'	2		
<i>Pinus strobus</i>	White Pine	6'	3		



## Alternate Tree Pricing

### Deciduous Trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Acer x freeman</i> 'Autumn Blaze'	Autumn Blaze Maple	2.5"	-	NONRESPONSIVE	
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	2.5"	-		
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	4"	-		
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	8' MS	-		
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	16' MS	-		
<i>Platanus x acerifolia</i> 'Bloodgood'	Bloodgood London Planetree	2.5"	-		
<i>Quercus bicolor</i>	Swamp White Oak	4"	-		
<i>Tilia americana</i> 'Redmond'	Redmond Linden	2.5"	-		
<i>Tilia americana</i> 'Redmond'	Redmond Linden	4"	-		
<i>Ulmus americana</i> 'Princeton'	American Elm	2.5"	-		

### Ornamental Trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Cercis Canadensis</i> 'Forest Pansy'	Forest Pansy Redbud	2"	-	NONRESPONSIVE	
<i>Malus</i> 'Sugar Tyme'	Sugar Tyme Crabapple	2"	-		
<i>Magnolia soulangeana</i> 'Jane'	Magnolia Jane	2" MS	-		
<i>Syringa reticulata</i> 'Ivory Silk'	Ivory Silk Japaneses Tree Lilac	2"	-		

### Coniferous Trees

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Picea abies</i>	Norway Spruce	5'	-	NONRESPONSIVE	
<i>Picea abies</i>	Norway Spruce	6'	-		
<i>Picea abies</i>	Norway Spruce	7'	-		
<i>Pinus strobus</i>	White Pine	6'	-		



PREPARED BY:	
LANDSCAPE DESIGN UNIT	
DRAWN BY: JD	0
CHECKED BY:	0
APPROVED BY:	
SHEET 1111 E	

LANDSCAPE PLAN

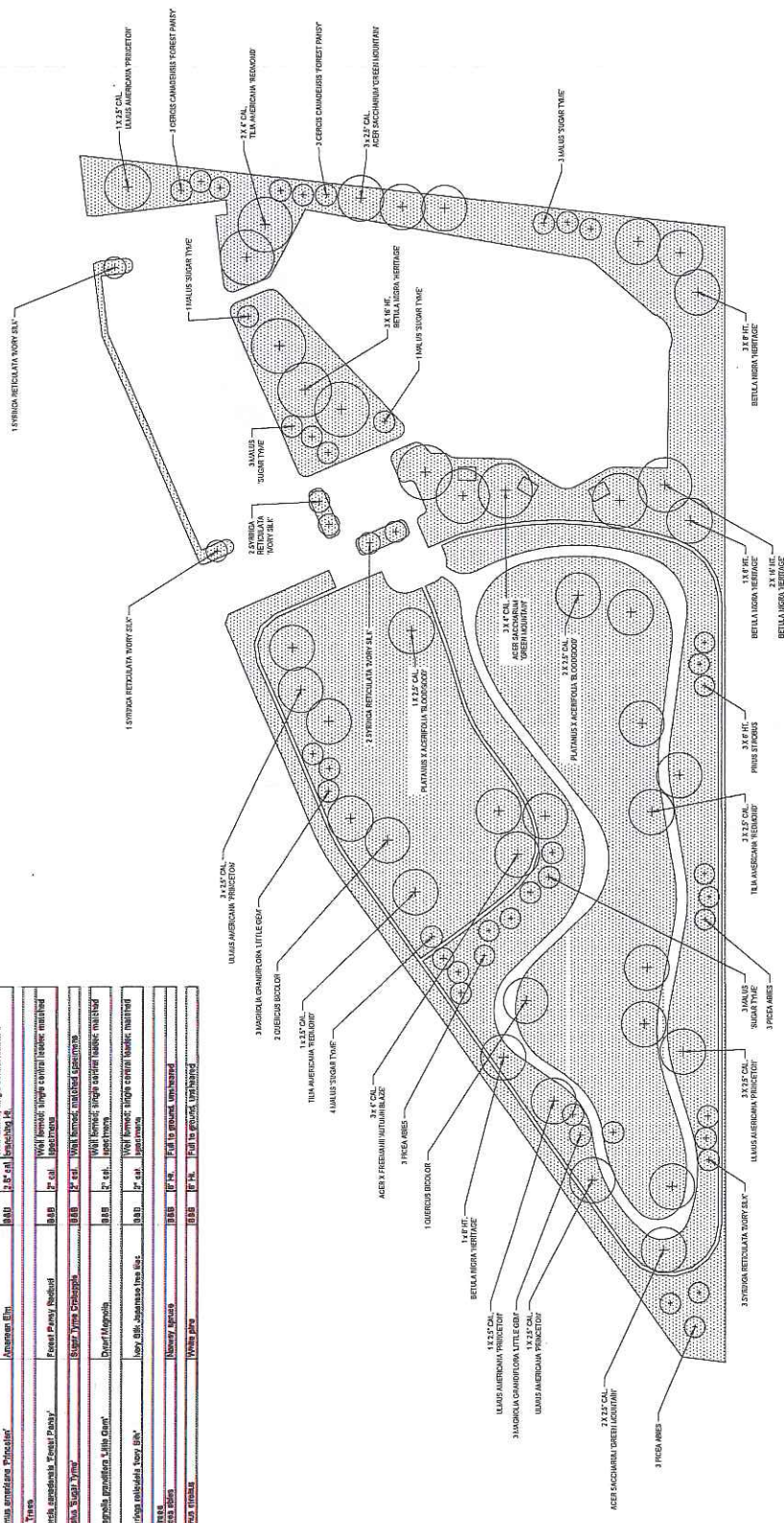
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REVISIONS:

PROJECT:

RIVERSIDE PARK  
3085 W. JEFFERSON

N	PROPERTY NO. 151 DISTRICT NO. 5
SCALE	SHEET NO. 1 OF 1

[illegible]

CITY OF DETROIT  
GENERAL  
SERVICES  
DEPARTMENT  
18100 Meyers Rd  
313-628-0900

NOTES:  
1. DO NOT SCALE OFF THE DRAWINGS. DETAILS ARE NOT TO SCALE.  
2. ALL SUBGRADES SHALL BE COMPACTED TO 90%.  
3. CALL 313-628-0900 (DETROIT) 3 BUSINESS DAYS BEFORE CONSTRUCTION TO HAVE UTILITIES MARKED.

PREPARED BY:  
LANDSCAPE DESIGN UNIT

DRAWN BY: DATE:  
CHECKED BY: DATE:  
APPROVED BY: DATE:

SHEET TITLE

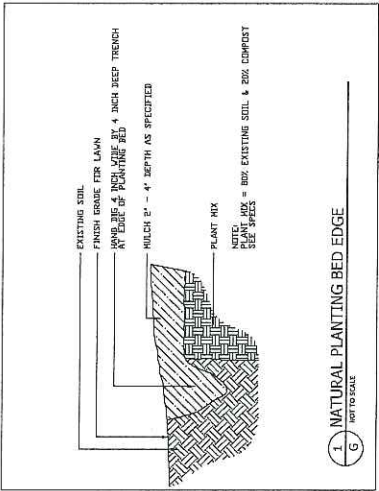
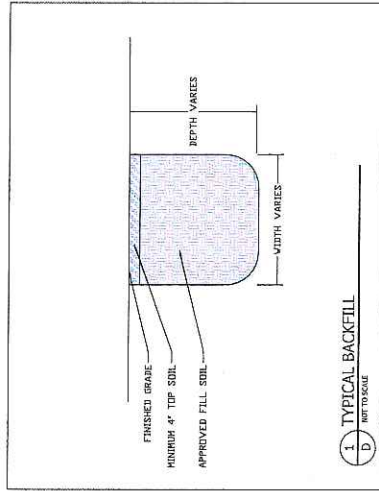
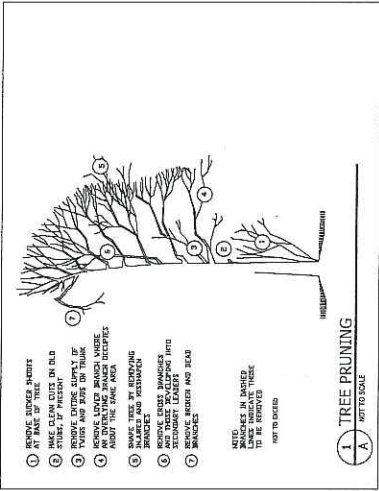
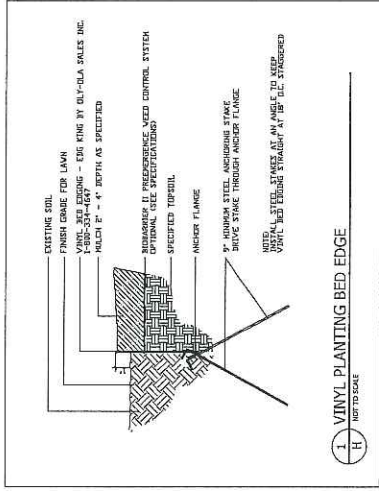
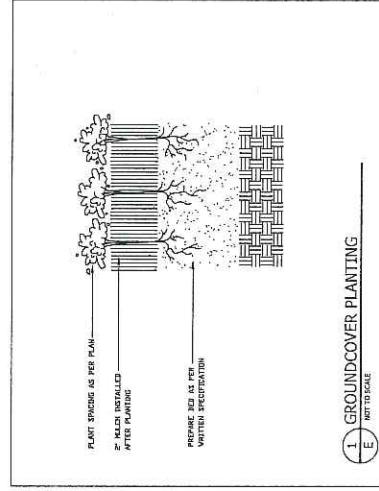
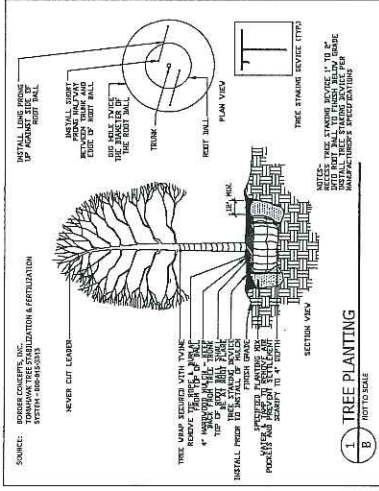
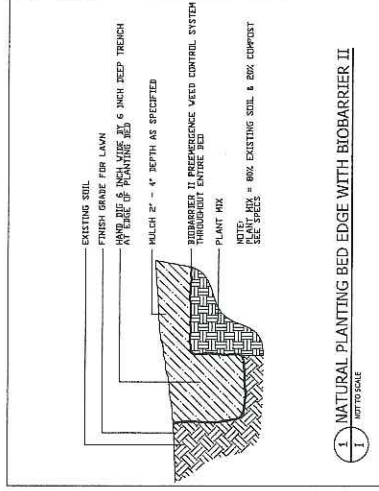
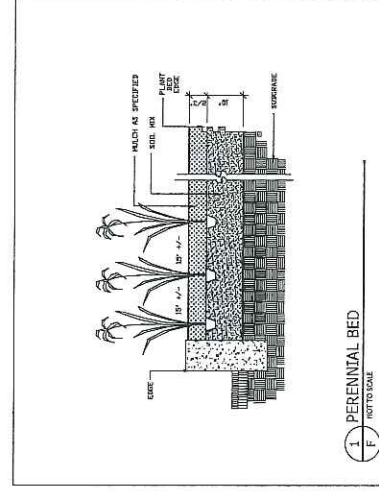
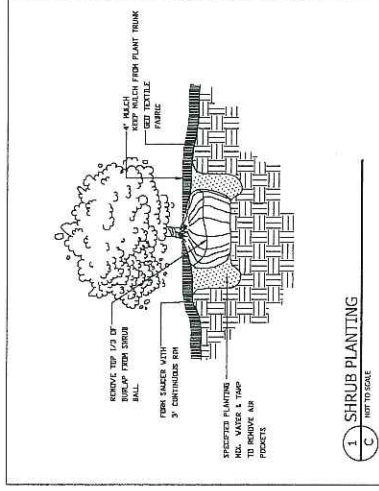
DETAILS

SUBMITTED FOR:

REVISIONS:

PROJECT:  
RIVERSIDE PARK

N O SHEET NO. 2 OF 2  
SCALE: 1/4" = 1'-0" CLUSTER NO.



Riverside Park  
3085 W. Jefferson

**Project Description:** Installation of vegetative canopy at Riverside Park, Phase 2.

**1. Tree Installation**

- a. Install all trees and shrubs to City of Detroit specifications, as described in *General Planting Notes*, which is attached to this document as Appendix 1.
- b. Install deciduous trees, at locations shown on drawing, and they shall be:

Species	Common Name	Size	Amount
<i>Acer x freeman</i> 'Autumn Blaze'	Autumn Blaze Maple	2.5"	3
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	2.5"	5
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	4"	3
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	8' MS	5
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	16' MS	5
<i>Platanus x acerifolia</i> 'Bloodgood'	Bloodgood London Planetree	2.5"	3
<i>Quercus bicolor</i>	Swamp White Oak	4"	3
<i>Tilia americana</i> 'Redmond'	Redmond Linden	2.5"	4
<i>Tilia americana</i> 'Redmond'	Redmond Linden	4"	2
<i>Ulmus americana</i> 'Princeton'	American Elm	2.5"	9

- c. Install ornamental trees, at locations shown on drawing, and they shall be:

Species	Common Name	Size	Amount
<i>Cercis Canadensis</i> 'Forest Pansy'	Forest Pansy Redbud	2"	6
<i>Malus</i> 'Sugar Tyme'	Sugar. Tyme Crabapple	2"	15
<i>Magnolia soulangeana</i> 'Jane'	Magnolia Jane	2" MS	9
<i>Syringa reticulata</i> 'Ivory Silk'	Ivory Silk Japanses Tree Lilac	2"	9



- d. Install coniferous trees, at locations shown on drawing, and they shall be:

Species	Common Name	Size	Amount
<i>Picea abies</i>	Norway Spruce	5'	2
<i>Picea abies</i>	Norway Spruce	6'	2
<i>Picea abies</i>	Norway Spruce	7'	2
<i>Pinus strobus</i>	White Pine	6'	3

- e. In addition to tree stakes specified in the City of Detroit Details included with the site plan, each tree will need to be staked from three sides.
- f. Mulch tree rings around each tree. 6' diameter circles. Mulch needs to be installed at a thickness of 6". 3" base of larger shredded bark, topped with 3" of double shredded bark. Pull mulch back from trunk of tree.

**2. Soil**

- a. Provide and install 500 yards of City of Detroit approved plant mix. This will be used to blend the tree root balls into the site. *Note: these trees will be installed on a clay base, which is capped with 6" of top soil. The tree pit cannot penetrate this clay base, due to environmental remediation being performed on site, and will thus the tree will be set on top of the clay, with top soil back filled up to the top of the tree ball.*

**3. Maintenance**

- a. Water all newly planted trees and shrubs fourteen times the summer after installation. Roughly twice a month from April to November, depending on weather. Consult with City Representative to create watering schedule.
- b. Remove all unwanted vegetation from all mulched areas, during each watering session.

**4. Site Restoration:**

- a. The completion of the site restoration work shall include, but is not limited to, the restoration of all areas disturbed by the construction work operations, backfilling, all final lawn rough grading, finish fine grading of the future lawn surfaces.

**5. Mobilization:**

- a. Mobilization will be paid for on a contract lump sum basis. Price paid shall be payment in full for all labor, material, and equipment necessary for all preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, tools and any other incidentals that are required to project site; and any other facilities necessary to undertake the work on the project; and for other work and operations, which must be performed, or for expenses incurred, prior to beginning work on the various contract items at the project sites. This item shall also include preconstruction costs, exclusive of bidding costs, which are necessary direct costs to the project and are of a general nature rather than directly attributable to other pay items under the contract. The

price paid shall be payment in full for Mobilization throughout the progress of the project work until completed.

**6. Layout & Field Survey:**

- a. Layout and field survey will be paid for on a contract lump sum. Price paid shall be contractor's responsibility to lay out all site elements, mark all field locations, set grades and review with City Representative for approval.
- b. Re - staking as requested by City Representative.

**7. Bonds & Insurance:**

- a. Bonds and Insurances will be paid for on a contract lump sum basis. Price paid shall be payment in full for the project contract bonds for the award amount and insurance policies throughout the life of the contract for the project work until completed.

**8. General Conditions:**

- a. General Conditions will be paid for at the Contract lump sum basis for work at all the various sites. Price paid shall be payment in full for General Condition's items & work throughout the progress of the Project Work, until completed.

**9. Miscellaneous & Close-Out Work:**

- a. Price paid shall be payment in full for all submittals, testing, labor, material, layout and equipment necessary for the completion to the full satisfaction of the City of the work required by this Project not otherwise included in a pay item listed above, and for the preparation and submittal to the City of all manufacturer warranties, required test results, other miscellaneous required documents, final permit clearances, maintenance manuals and manufacturer data as may be required within individual specification sections of the Contract Documents, completion of any and all "punch list" work to satisfaction and acceptance of the City, "As Built" drawings given to the City Representative as a complete package and Final Waivers from all subcontractors and suppliers, release of Surety, and a final Sworn Statement.

**Alternate 1 - Second Year Maintenance**

- a. Water all newly planted trees and shrubs fourteen times the second summer after installation. Roughly twice a month from April to November, depending on weather. Consult with City Representative to create watering schedule.
- b. Remove all unwanted vegetation from mulch bed, during each watering session.

### Alternate 2 – Additional Soil

- a. Provide and install 500 yards of City of Detroit approved plant mix. This will be used to blend the tree root balls into the site. *Note: these trees will be installed on a clay base, which is capped with 6" of top soil. The tree pit cannot penetrate this clay base, due to environmental remediation being performed on site, and will thus the tree will be set on top of the clay, with top soil back filled up to the top of the tree ball.*

### Alternate 3 - Additional Trees and Shrubs:

Prices to be provide for alternate trees, which can be selected on a per tree basis. All alternate trees should be priced to include installation, and mulch rings. Alternates will be selected to be purchased with the entire order, rather than a secondary order, and will include maintenance.

- a. Install deciduous trees, at locations determined by City Representative, and they shall be:

Species	Common Name	Size	Amount
<i>Acer x freeman</i> 'Autumn Blaze'	Autumn Blaze Maple	2.5"	-
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	2.5"	-
<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	4"	-
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	8' MS	-
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	16' MS	-
<i>Platanus x acerifolia</i> 'Bloodgood'	Bloodgood London Planetree	2.5"	-
<i>Quercus bicolor</i>	Swamp White Oak	4"	-
<i>Tilia americana</i> 'Redmond'	Redmond Linden	2.5"	-
<i>Tilia americana</i> 'Redmond'	Redmond Linden	4"	-
<i>Ulmus americana</i> 'Princeton'	American Elm	2.5"	-

- b. Install ornamental trees, at locations determined by City Representative, and they shall be:

Species	Common Name	Size	Amount
<i>Cercis Canadensis</i> 'Forest Pansy'	Forest Pansy Redbud	2"	-
<i>Malus</i> 'Sugar Tyme'	Sugar Crabapple Tyme	2"	-

<i>Magnolia soulangeana</i> 'Jane'	Magnolia Jane	2" MS	-
<i>Syringa reticulata</i> 'Ivory Silk'	Ivory Silk Japaneses Tree Lilac	2"	-

c. Install coniferous trees, at locations determined by City Representative, and they shall be:

Species	Common Name	Size	Amount
<i>Picea abies</i>	Norway Spruce	6'	-
<i>Pinus strobus</i>	White Pine	6'	-



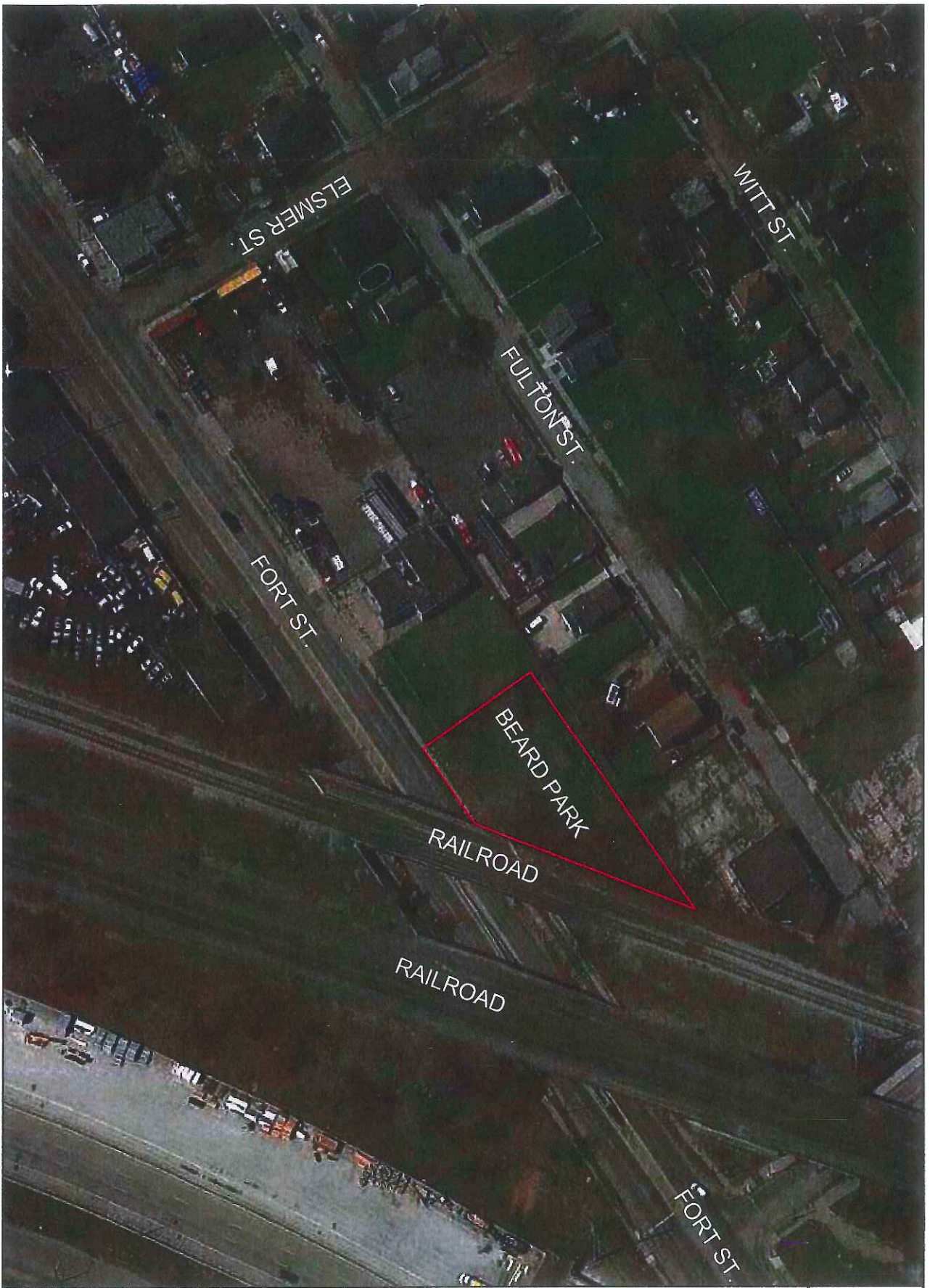
## Appendix 1

### **GENERAL PLANTING NOTES**

1. All plants to be installed in accordance with American Association of Nurserymen (A.A.N.) Landscape Standards.
2. Fertilizer shall be M-Roots 3-3-3 or City Representative approved organic fertilizer(s) with Mycorrhiza(s) and applied to the plant mix according to Manufacturer's Directions.
3. Contractor shall provide a Plant Mix consisting of 50% existing soil, 30% sandy loam topsoil and 20% compost. The City Representative shall be allowed two weeks to receive any and all required soil test results. No plants shall be planted prior to City Representative approval of soil conditions.
4. Backfilling of all voids from removal work shall be with sandy loam topsoil and existing approved site soils. Discovered site concrete, gravel or other non-soil(s) will not be acceptable.
5. Spacing of plant materials shall be as shown on drawing, City Representative reserves the right to modify all plant and bed locations prior to planting at no additional cost to the City. The contractor must coordinate the layout and planting three business days in advance with City Representative so that coordination of the planting on that day is not hampered.
6. Refer to specifications for additional requirements.
7. All plants shall bear the same relationship to finished grade as the plants original grade before digging.
8. No container grown stock will be accepted if it is root bound. Any and all wrapping materials made of synthetics or plastics shall be completely removed prior to the time of planting.
9. All plant pits must be a minimum of twice the root ball or container diameter.
10. Contractor shall fill plant pit with prepared plant mix to ½ depth of root ball or root mass, pack mix firmly and puddle with water.
11. For balled and burlaped material, the burlap and all lacing (including wire basket if present) shall be removed from the upper-half of the root ball, then finish backfilling with plant mix. Removal all excess soil from top of root ball that is above the Original Nursery Grade.
12. A saucer shall be placed around every plant and shall be approved prior to the placement of any geo-textile fabric or mulch.
13. All plant materials shall conform to plant schedules. Sizes shall be the minimum stated on the plant list or larger. All measurements shall be in accordance with the latest editions of the "A.A.N. Standards For Nursery Stock."
14. Contractor shall apply City Representative approved pre-emergent herbicide to planting beds following plant installation and prior to mulch placement. The Contractor shall ensure the plant materials are resistant to the herbicides properties. Herbicide shall be applied according to Manufacturers Specifications and in accordance with sound horticultural practices.
15. All mulch material shall be placed at a minimum depth of 3" and shall be double-shredded hardwood bark. No mulch shall be placed on plants trunks.

16. Refer to Specifications for Lawn Restoration and Establishment to provide acceptable established turf.
17. All plant materials shall be inspected upon arrival. Any plants not acceptable to the City Representative will be rejected. If for any reason any balled and burlaped plant materials need to be stored on site longer than a 24-hour period, their root balls shall be protected by a City Representative approved method. All plants shall be thoroughly watered each day they are stored on site. Any plants allowed to dry out will be rejected.
18. Plant materials, especially evergreens, shall be planted higher than normal when heavy soil conditions (clay, etc.) prevail.
19. All planting beds shall be prepared with appropriate soil mixtures and fertilizer before plant installation.
20. Natural edging shall consist of a 6 x 6 inch trench filled with mulch.
21. Any discrepancies between the plans and specifications shall be immediately reported to the City Representative for his review and decision.
22. Contractor shall supply all plant materials in quantities sufficient to complete the planting shown on all drawings.
23. No plant shall be put into the ground before rough grading has been finished and approved by the City Representative.
24. All plants and stakes shall be set plumb unless otherwise specified. All guys and stakes must be located within each trees' mulched area to eliminate the possibility of mower contact and to reduce maintenance. Staking of the shrubs is not anticipated. However, if it is determined by the City Representative that staking is required, the contractor shall stake all desired plants at no additional cost to the City.
25. Contractor shall be responsible for viewing the site prior to bidding making note of any special conditions that would be a concern to this part of the contract.
26. Contractor shall provide a one year warranty on all plant materials and any plants that are determined by the City Representative to be defective at his or her own discretion must be replaced. Replacement must be done during the following planting season. All plants are to be thoroughly watered at planting and another additional time two weeks after.





PROJECT:  BEARD PARK	
PREPARED BY: LANDSCAPE DESIGN UNIT	
DESIGNED BY: DATE: 8/20/2017	DATE: 8/20/2017
APPROVED BY:	
SHEET TITLE:  PROPOSED SITE PLAN	
N ↑ SCALE:	COURTESY MAP
PRESENTED BY: DETROIT, MI	





Beard Park

**Plant Pricing Sheet**

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Cercis canadensis</i>	Redbud	2.5"	5	NONRESPONSIVE	
<i>Picea abies</i>	Norway Spruce	6'	5		
<i>Syringa reticulata</i>	Japanese Tree Lilac	2.5"	7		
<i>Ulmus americana</i> 'Princeton'	American Elm 'Princeton'	2.5"	3		

**Alternate tree pricing**

Species	Common Name	Size	Amount	Price Per Tree	Total
<i>Cercis canadensis</i>	Redbud	2.5"	5		
<i>Picea abies</i>	Norway Spruce	6'	5		
<i>Syringa reticulata</i>	Japanese Tree Lilac	2.5"	7		
<i>Ulmus americana</i> 'Princeton'	American Elm 'Princeton'	2.5"	3		